POLAND: HOUSING FINANCE AT THE MILLENNIUM

AN ASSESSMENT OF ACHIEVEMENTS AND OUTSTANDING ISSUES

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ABSTRACT

Poland is now developing one of the most effective systems of housing finance among the transition countries. The sector has reached an enviable position in replacing decades of state monopoly and control with a market-driven and competitive environment.

This paper, developed as the keynote presentation of the Final Conference of USAID's Poland Housing Finance Project, provides a quantitative and qualitative assessment of Poland's housing finance system — both its successes and areas remaining to be addressed — at the commencement of the year 2000. The Conference, jointly sponsored by USAID and the Polish Banks Association, was held on December 8 and 9, 1999 in Warsaw. Since the fall of 1996, the Urban Institute Consortium (UIC), which includes the Urban Institute, the Crakow Real Estate Institute, and numerous Polish, American, and European experts, has carried out assistance for the Poland Housing Finance Project. The UIC program has been fortunate to be involved during the crucial period after the end of subsidized lending in 1996; since then, Poland has been moving toward a new era of competitive lending and an effective institutional and legal framework for the continued development of housing finance.

This paper looks at the evolution of housing finance in Poland and at the factors that have supported its development. An overview of the portfolio, the major lenders, and the characteristics of typical mortgage products is provided, based on a first-of-its-kind survey of banks developing business in housing finance. The efficiency of the system is analyzed through a variety of efficiency measures, including the spread (the gap between the mortgage lending rate and the cost of funds), "real" rates (the gap between the mortgage rate and inflation), and "intermediation efficiency" (the gap between the mortgage rate and the Treasury bill rate). The report also assesses the major issues which remain to be more fully addressed as the system matures, including developing information systems to assist with analysis and management of risk, maintaining a level playing field between the universal banks and the emerging mortgage banks, and re-assessing risk sharing, especially the proportion borne by the lenders, as the legal infrastructure and new credit enhancement mechanisms evolve.

Finally, the paper draws on — and is intended to complement — the previous studies undertaken by UIC for the Poland program. These papers have addressed a wide range of issues, including regulation and supervision, housing subsidies and tax reform, housing and the macroeconomy, the risks of commercial lending and of international capital flows, public sector housing finance policies, dual indexed mortgages, mortgage insurance, the statutory lien, and information systems for appraisal.

LIST OF ACRONYMS

AHS	American Housing Survey
CEE	Central and Eastern Europe
DIM	Dual Index Mortgage
GDP	Gross Domestic Product
GINB	Generalny Inspektorat Nadzoru Bankowego (General Inspectorate of Banking Supervision)
Gminas	Local authorities in Poland
GOP	Government of Poland
GUS	Central Office of Statistics
HRI	Housing Research Institute (Instytut Gospadarki Mieskaniowej)
HUDA	Housing and Urban Development Authority
MBS	Mortgage Backed Security
MOF	Ministry of Finance
NBP	National Bank of Poland
PBA	Polish Banks Association
PLN	New Polish Zlotys
UIC	Urban Institute Consortium
USAID	United States Agency for International Development
VUS	Voivodship Statistical Office
LTV	loan-to-value ratio

POLAND: HOUSING FINANCE AT THE MILLENNIUM

1.0 INTRODUCTION

Poland is now developing one of the most effective systems of housing finance among the transition countries. The sector has reached an enviable position in replacing decades of state monopoly and control with a market-driven and competitive environment. This paper provides a quantitative and qualitative assessment of Poland's housing finance system—both its successes and areas remaining to be addressed—as the year 2000 approaches. It is one of two papers developed for the Final Conference of USAID's Poland Housing Finance Project. The companion paper offers visions for the future evolution of the system's funding.[1] Both discussions use the same definition of efficiency—a definition that keys off the important common characteristics that make advanced systems of housing finance both efficient and responsive to changes in demand and/or macroeconomic factors, while being flexible enough for use in assessing developing systems of housing finance in transition countries such as Poland. The conference, jointly sponsored by our major counterpart, the Polish Banks Association, was held on December 8 and 9, 1999. The two papers should also be useful to participants who attended the Central and Eastern European (CEE) Regional Conference, held on December 10.

USAID has provided nearly a decade of assistance to developing the housing finance system in Poland. Since the fall of 1996, the Urban Institute Consortium (UIC) has carried out this assistance on USAID's behalf.[2] The UIC program has been fortunate to assist during the crucial period after the end of subsidized lending in 1996, since then Poland has been moving toward a new era of competitive lending and an effective institutional and legal framework for the continued development of housing finance. These papers complement the previous studies undertaken by UIC for the Poland Housing Finance Program, which have addressed a wide range of issues—including regulation and supervision, housing subsidies and tax reform, housing and the macroeconomy, the risks of commercial lending and of international capital flows, public sector housing finance policies, dual indexed mortgages, mortgage insurance, the statutory lien, and information systems for appraisal.[3]

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[1] See Michael Lea, "Global Models for Funding Housing: What is the Best Model for Poland?", prepared for the final conference of the USAID Poland Housing Finance Project, "A Decade of Building Housing Finance in Poland: Challenges at the Outset of the New Century", December 1999.

[2] The Urban Institute Consortium includes The Urban Institute, in Washington D.C., the Crakow Real Estate Institute, in Warsaw and Crakow, and numerous technical experts from Poland, the U.S., and Europe.

[3] For a list of abstracts of UIC reports, please refer the Poland Housing Finance webpage at www.polandhousingfinance.org.

2.0 THE EVOLUTION OF HOUSING FINANCE IN POLAND

Poland's economic transition, including its housing sector, has been described at length elsewhere and will not be repeated here.[4] With regard to housing finance, Poland is now in the second stage of transition and is about to enter the third. The first stage began in 1991, with assistance provided by Polish and international institutions, including USAID.[5] This assistance was especially directed at capacity building: institutional capacity building such as the Mortgage Fund and the establishment of PAMBank (currently GE Bank Mieszkaniowy), human capacity building via extensive training programs, and legal and administrative capacity building instituted through both decentralization and passage of the main laws that would henceforth govern housing and housing finance. The end of the first stage is perhaps best marked by the end of subsidized lending by PKO BP and the initiation of lending by PBK, both in 1996.

The success of this first stage also owes a great deal to the larger economic, social, and institutional transitions being undertaken in Poland at the same time. Among the notable factors that assisted housing finance to mature were:

- Reform of the banking sector, which propelled the overall financial sector towards a modern, market-based, competitive system.
- Macroeconomic policies, which led not only to falling inflation but also, importantly, to a decline in inflation which proceeded on a steady course.
- Competition, which has been crucial. When PKO BP ended subsidized lending, competition from private and foreign banks could emerge; three of the universal banks (BISE, Pekao S.A./PBG, PBK) and PAMBank quickly seized this opportunity.
- DIMs (dual index mortgages), which proved to be successful in Poland's environment of falling rates, and considerably enhanced the affordability of mortgage loans.
- Establishment of the Mortgage Fund, a refinancing institution supported by international donors as well as the GOP, which boosted liquidity by refinancing eligible DIM loans. Even more important perhaps, the Fund enhanced the technical development of both construction and residential mortgage finance.

The second stage of evolution – 1996 through mid-1999 – has witnessed the emergence of the modern system. The millennium will find Poland's universal banks with a steadily increasing portfolio in mortgage finance. Although about 30 banks now offer mortgage finance, 5 or 6 dominate the market, with portfolios that include a variety of mortgage products and terms. Poland has continued to support more affordable lending with a variety of DIM products. Its unique experience in this regard probably

[4] See Michael Lee, "USAID's Assistance to Poland's Housing Finance Sector: 1991 – 1999", USAID, Warsaw, 1999, and Raymond Struyk, ed., "Economic Restructuring of the Former Soviet Bloc: the Case of Housing", The Urban Institute Press, Washington D.C., 1996.

[5] During this period, assistance was provided to housing finance by USAID, the World Bank, the EBRD, and the British Know-How Fund. See Michael Lee, op. cit. for a compendium of assistance by USAID.

offers the most successful example worldwide. Poland has also sustained its efforts to conquer inflation – which moved into the single digits during 1999 and made zloty-based consumer lending relatively affordable. And, since its GDP reversed its downward spiral in 1993, Poland has maintained the highest average rate of economic growth in CEE.

At the dawn of the new millennium, Poland's housing finance system is on the cusp of a third transition. Privatization of state banks, mergers, and accelerated entry of major foreign banks and capital have changed the face of the banking sector. The Mortgage Banking Law, in particular, has re-opened the door to the type of funding that was integral to Poland's pre-war system of housing finance. As more of Poland's new mortgage banks begin operation in 2000, Poland will emerge with a dual funding system – depository as well as capital-market based. Unlike the Czech Republic and Hungary, for example, where mortgage banking has already begun, Poland has granted only one mortgage bank license to-date and the bank was not yet operational as of this writing. Thus, relative to the situation in some other CEE countries, Poland's universal banks have gathered considerable market momentum.

Poland is also consolidating its progress on a wide variety of housing finance issues. These include continued improvement of the legal and administrative framework, development of a regulatory and supervisory system specific to housing finance, streamlining of existing mortgage products, and strengthening of the peripheral institutions and organizations necessary for an effective real estate market (among which are a strong bankers association with a specialized committee on housing finance, a credit bureau, and associations of home builders, realtors, and appraisers). Both continued reform of the banking sector and implementation of the supervisory regime for housing finance will contribute to the stability of the housing finance environment.

Government policies toward housing are also in the midst of major reform. Subsidy policies are being redesigned to be consistent with the GOP's tax reform and other proposals, including more effective targeting. Government has offered support to both residential and rental sectors and has sought to design more targeted and transparent subsidies. Homeownership is to be supported by either a mortgage interest deduction or an interest buy-down, directed at specific income groups in need of assistance. Unlike many of its neighbors in CEE, Poland's contract savings system is likely to be developed according to internal specifications rather than wholesale adoption of the Bauspar model.

Problems and questions certainly remain. New construction has not yet regained pre-transition levels. Interest rate spreads, although they may be slowly falling, remain especially high. Questions include whether universal and mortgage banks will be able to compete on a level playing field and whether, especially in the short-term, mortgage banks will be able to raise money at competitive rates. Similarly, it remains to be seen whether the long-term funds for housing finance will be secured from the capital market solely through mortgage bonds, or whether additional debt instruments and/or systems of liquidity, refinancing, or securitization will come into play. Finally, in order to properly measure (and therefore price) various elements of risk inherent in any system of housing finance, the information systems of the banks and a number of public agencies must be enhanced to provide the necessary information to potential investors as well as others with a legitimate need for it. Such improvements should both reduce interest rates and increase the use of housing finance.

3.0 A SCORECARD FOR POLAND

Poland can justifiably pride itself not only on its economic growth and relative stability but also, especially in recent years, on its thoughtfully developed approach to housing and housing finance policy. This section begins with a brief introduction to the criteria we use to assess the efficiency of its current system. A quantitative and qualitative assessment of Poland's current system follows.

3.1 Criteria for Assessing Efficiency Achievements in a Developing Housing Finance System

Of the various definitions of efficiency that exist, one approach that has been well-developed for the advanced systems in the U.S. and Europe is so-called *intermediation efficiency*: a system of "institutional, transactional, subsidy, and risk allocation arrangements with the lowest total public and private costs of providing housing credit."[6] Intermediation efficiency begins with a comparison of the cost to borrowers of a specific mortgage contract; this is then compared with the cost of government debt, assumed to represent the minimum borrowing cost. This definition (when adjusted for country differences in costs of origination, costs of subsidies, the value of options and so forth) has been used in a statistical comparison of housing finance in Germany, the United Kingdom, the United States, France, and Denmark.

The intermediation definition is useful because it is both a clear concept and can be relatively well quantified. The features just listed are not sufficient for an overall assessment of housing finance system efficiency in the context of transition nations, however, or even advanced ones. Also needed are factors that are not readily quantifiable, such as the ability to withstand the variability of business cycles or even stronger attacks on stability. Equally important is increasing household access to the housing finance system. For this reason, incentives to develop affordable housing finance policies, together with government and third party enhancements, should be included as additional criteria. Finally, certain features need to be added to the "efficiency" list that are generally implicit in the efficiency definition for developed countries but deserve explicit treatment as goals for transition nations. Criteria that fit this part of the expanded efficiency definition include a competitive structure and falling real interest rates. Other criteria for success (which, again, may be implicit in the study of developed systems) are factors that help create the "market," such as effective regulation and supervision, effective information systems, and the support of professional associations.

The criteria of efficiency and effectiveness relevant for advanced transition nations include the following:

[6] See Douglas Diamond and Michael Lea, "Housing Finance In Developed Countries: An International Comparison of Efficiency, Journal of Housing Research, Vol. 3, Issue 1, 1992, for the definition of efficiency discussed here.

- A competitive, market- driven structure
- Falling real lending rates
- A variety of loan products and terms
- Alternative funding sources: retail and wholesale
- Adequate measurement and assessment of risk (legal risk, credit risk, interest rate risk, liquidity risk, operations risk)
- Appropriate sharing of risk by lenders, borrowers, investors, and third-party credit enhancements
- Increased support and "self regulation" by professional organizations
- Adequate regulation and supervision
- Compatibility of public subsidy policies and market housing finance
- Adequate utilization of mortgage finance
- Improving information systems for servicing, marketing, and analysis of demand and trends in housing finance

3.2 Major Achievements in Housing Finance in Poland

3.2.1 A Competitive Institutional Structure

Poland has developed a competitive, market-driven system of housing finance in less than four years. While PKO BP remains dominant, in three years its position in the market has dropped from being a monopolist to facing real competition. Other banks now hold about 22 percent of the loans and 37 percent of the total portfolio value.[7] Furthermore, the rate of increase in the volume of lending by the other universal banks is growing quickly. Of the competition, two banks each hold about 7 percent of the total portfolio (in PLN); the share of the next five banks combined is about 14 percent (with shares ranging from 2 percent to 4 percent); the share of all the other lenders together is about 8 percent.

Poland's main concern now may be, not lack of competition, but rather an "over-banked" financial sector. Poland's banking sector has experienced a major thrust toward consolidation and the dominance of new, larger institutions – through mergers, acquisitions, privatization, and continued entry of foreign partners. Poland boasts six of the eleven largest bank sales to foreign banks to take place in Eastern Europe.[8] In any event, the housing finance sector, like the banking sector overall, appears to have too

[7] Much of the data cited here stems from a survey of banks in Poland carried out in August and September of 1999 by CREI. The design and implementation of the survey was completed with the assistance of the Polish Banks Association (PBA). Hopefully, this is the first of many surveys of housing finance which will provide the PBA, and the banks, with a timely assessment of the market and the trends over time in mortgage finance, and commercial and developer credits.

[8] In order of sale size, as ranked by price, these include Pekao (second place), BPH (third place), Bank Zachodni (fourth place), Bank Slaski (seventh place), Bank Handlowy (tenth place), and WBK (eleventh place). The other largest sales occurred in the Czech Republic (CSOB first place, IPB, sixth place), Hungary (CIB, fifth place), Hansapank (Estonia, seventh place), and BDR (Romania, ninth place). Business Central Europe, October 1999, p. 50.

many players to be sustainable in the long run. Thus, more consolidation is to be expected.

In addition to becoming more competitive, Poland's housing finance portfolio has grown quite rapidly since 1996 (as discussed further below). The holdings of those lenders with the majority of the portfolio now represent a reasonably substantial share of their total assets. Considered across the entire banking system, however, housing finance still represents only a small portion of total assets. Table 1 shows the growth in total assets and asset components between the end of 1996 and mid-1999. Consumer lending and mortgage lending have both grown as shares of total assets, but the mortgage portfolio has grown more rapidly, now accounting for just over 1 percent of the total. If demand and stability conditions remain favorable, this percentage is likely to increase fairly rapidly, perhaps even reaching 10 percent of total assets, and a higher proportion of consumer lending, in the near future.[9]

Table 1: Selected Data on Assets: Aggregated Balance For Poland's Banking Sector[10]

Month & year	Total Assets (PLN mil)	From the Non-financial Sector	From Consumers	Total Mortgage Portfolio
12/96	207,111.7	38.62%	5.62%	0.32%
12/97	259,636.0	40.88%	7.07%	0.58%
12/98	334,296.8	39.91%	7.14%	0.87%
6/99	364,538.5	40.90%	7.76%	1.08%

Mortgage Lending by the Universal Banks. Table 2 provides estimates of the total mortgage portfolio of all banks responding to the CREI/PBA Survey.[11] These estimates include mortgage lending (loans for purchase of a dwelling), and developer credits for residential housing and for commercial construction.[12] Total portfolio growth from the end of 1996 through 1997 was 125 percent, followed by increases of 93 percent during 1998 and 36 percent in the first six months of 1999 (if this pace continues to the end of 1999, the annual pace would again be around 90 percent). Comparing these rates with the rate of inflation during comparable time periods makes it clear that substantial real gains have been made (inflation was 19.9 percent in 1996, 14.9 percent during 1997, 11.8 percent in 1998, and only 6.5 percent in June 1999). The number of loans has also increased, though somewhat more slowly, increasing the value of the average loan in nominal terms but not in real terms. Factors cited for the increase in the volume of lending include a decrease in interest rates and also the expected elimination of the personal income tax deduction for home construction.[13]

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[9] See the comments in Michael Lea, "Global Models for Funding Housing: What is the Best Model for Poland?" It is noted there that commercial banks in developed countries hold between 20 to 40 percent of their assets in mortgages; thus Poland might reasonably expect to head toward this share in the longer term.

[10] Calculations made by CREI based on data from NBP (National Bank of Poland) and the CREI/PBA Survey.

[11] The Survey was conducted in all banks which are members of Housing Committee of PBA.

[12] Mortgage lending (residential lending) is the sum of credits to individuals and short-term credits to builders on behalf of individuals. It may include a small volume of non-mortgage housing loans.

[13] See Polish News Bulletin, August 24, 1999, p. 7 for remarks by PKO BP.

Table 2: Total Mortgage Finance Credits Outstanding

Month & Year	Total: PLN Mil.	Number Of Loans (000s)	Average Loan (000s)
12/96	663.0	21.5	30.9
12/97	1502.2	42.5	35.3
12/98	2903.6	73.5	39.5
6/99	3952.6	96	41.2

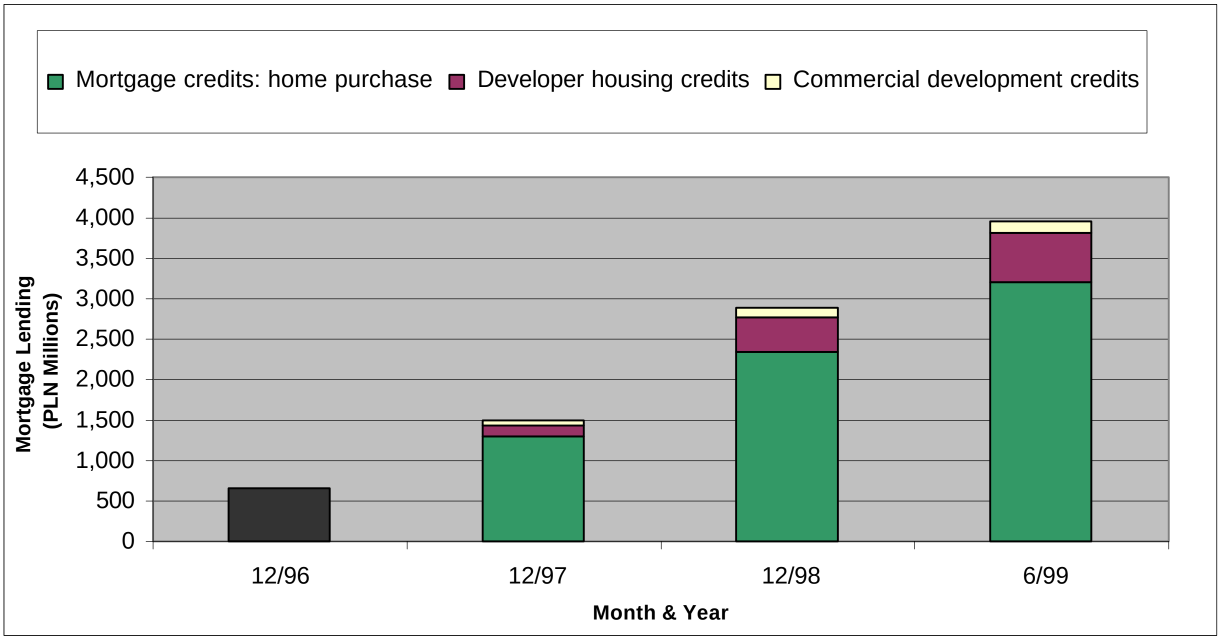
Source: UIC/PBA Bank Survey and CREI estimates

Chart 1 divides the housing portfolio by type of credit.[14] Mortgage credit dominates, accounting for over 81 percent of housing lending; credits to developers stand at 15.2 percent and commercial credits at 3.5 percent of the total. Different types of credit have grown at considerably different rates. Mortgage credits have increased nearly two and half times in the eighteen months between the end of 1997 and June of 1999; developer credits have increased just over four and a half times; commercial credits have increased somewhat less than twice. Reportedly, the commercial market is somewhat overbuilt, especially in Warsaw, and some rents have actually fallen. (Warsaw now has considerably more office space per capita than either Prague or Budapest.[15])

[14] The Data for all Charts are presented in the Data Annex

[15] See Estates News Warsaw, September 1999, p.8, and Estates News Bucharest, September 1999, p. 19 for discussions of office space in CEE and NIS.

Chart 1: Total Mortgage Finance Poftfolio by Type of Credit[16]



In addition, beginning at the end of 1999, households with contract savings accounts can begin to take out low interest loans. Pekao has already announced that 14,000 contract holders will be eligible to take out a loan; it expects 60 percent of the households to do so. Thus, growth in mortgage credits will receive a new boost from 2000 onwards.

With no precedents for development of market-based housing finance in transition countries, it is difficult to assess whether the increase in mortgage lending (from a very small base, of course) has been "rapid" or not, especially for mortgage credits for home purchase. One relevant comparison is the increase in mortgage lending compared with the increase in total due to private persons – a broad measure of total consumer lending. Table 3 makes this comparison. Increases in mortgage lending for home purchase have outpaced those of private credit overall by a considerable margin: mortgage finance as a share of total consumer lending, which was only 5.7 percent at the end of 1996, had risen to nearly 14 percent by June 1999.

[16] Complete data by type of credit for 12/96 is unavailable.

Table 3: Increases in Total Consumer Credit and Mortgage Lending

Period	Increase in total due to consumers	Increase in mortgage portfolio
12/97 – 12/98	30%	82%
12/97 – 06/99	54%	147%

In addition, mortgage lending use in Poland, while still fairly small in comparison with the U.S. and most of Europe, is higher than that in either Hungary or the Czech Republic; estimates indicate that about 20 percent of purchases of new homes are made with mortgage loans (we do not have estimates of loan usage for purchases of existing homes because there are not adequate estimates of the number of transactions). Although it is not clear what level of utilization should have been expected at this stage in the transition process, Poland's banks are leading the region.[17]

A major shift in the institutional structure of lending in Poland may occur in the third stage of the sector's evolution, as Poland's new mortgage banks begin operation. How many of the universal banks will continue to compete, or whether those universal banks wishing to remain serious players in housing finance will establish mortgage banks, is not clear. What is clear is that the millennium will witness one of the most important steps in the institutional evolution of housing finance.[18]

3.2.2 Loan Products and Terms

Key features of the residential mortgage portfolio for the major lenders (see Table 4) include:

- **Type of Loan Product.** DIMs (dual index mortgages) dominate the overall portfolio. Roughly 40 percent of PKO BP's portfolio is represented by DIMs, which also make up about 80 percent of BISE's and 25 percent of Pekao S.A./PBG's portfolio. The remainder of PKO BP's residential loans are DPMs (deferred payment mortgages, also an indexed product). Most of the balance is made up of variable interest rate products. Among the major lenders, only PAMBank offers fixed rate loans ($ denominated).

  Poland is unique in the world of housing finance in the dominant role played by DIMs. To our knowledge, no other nation has depended on DIMs to this extent and no other system of housing finance has been as successful with DIMs as has Poland. DIMs are a highly technical loan product, and can be extremely risky. Poland has benefited from a number of factors that together have contributed to the

[17] See Douglas Diamond, "The Transition in Housing Finance in Central Europe and Russia: 1989 – 1999", prepared for the final conference of the USAID Poland Housing Finance Project, "A Decade of Building Housing Finance in Poland: Challenges at the Outset of the New Century", December 1999.

[18] See Michael Lea, op. cit. for a discussion of the advantages and disadvantages of the universal bank versus mortgage bank funding model.

DIM success to date: (1) a steady fall in both the level and variability of inflation; (2) training in the development and use of DIMs, especially through the Mortgage Fund; and (3) relatively conservative general principles regarding DIM characteristics, including Mortgage Fund eligibility rules for refinancing.[19]

- **Currency**. The vast majority of loans are zloty-denominated. However, PAMBank's loans include $U.S. and BISE offers in French francs as well as zlotys. Smaller mortgage lenders offer Deutsche marks and/or Austrian shillings (such as Bank Creditanstalt), or $U.S. (BPH, Creditanstalt, Investbank, and LG Petro Bank).

- **Interest Rates.** Two features of the interest rates on variable loans are particularly noteworthy. First, rates have steadily declined, especially during 1999. Second, depending on the time period, the rates offered across the major competitors have varied fairly widely. (See also the analysis of lending rates relative to other market parameters, below.)

Table 4: Characteristics Of Residential Mortgage Lending

Descriptor	PKO BP	Pekao S.A. (PBG)	GE Bank Mieszkaniowy (PAMBank)	PBK	BISE
Mortgage Type	DIM, DPM	DIM, Conventional	Conventional	DIM, Conventional	DIM, Conventional
Currency	PLN	PLN	PLN, $U.S.	PLN	PLN, FRF
Maximum Loan/Value	Max. 80%	Max. 75%	Max. 70%	Max. 75%	Max. 70%
Typical Loan/Value	40% - 50%	40%-50%	60-65%	40%-50%	60%
Maximum Amount of Loan	20 x gross monthly income	27 x monthly income or 75% of cost	70% of cost	25 x monthly income or negotiable	70% of the cost
Minimum Downpayment	20%	25%	30%	25%	30%
Term	Up to 20 years	Up to 15 years	7 to 15 years	Up to 15 years	5 – 15 years
Interest Rates	Variable	Variable	Variable, Fixed	Variable	Variable
1/97	25.50	25.90	25.01	25.37	25.90
12/97	25.50	24.10	26.00	24.96	24.92
6/98	25.50	24.10	26.00	24.96	24.92
10/98	24.20	19.54	26.00	19.63	21.69
5/99	16.40%	18.40%	18.71%	16.01%	16.97%
7/99	16.40%	17.25%	17.35%	15.20%	16.9%

Source: CREI/PBA 1999 Survey of Banks and Rzeczpospolita.

- **Maturity.** Loan maturities range from 5 to 20 years. “Typical” maturity is 10 to 15 years. Although prepayments were fairly common two or three years ago (perhaps

[19] See Loic Chiquier, “Dual Index Mortgages: Conditions of Sustainable Development”, February 1998. The construct of DIMs in Poland is to a large extent a function of the technical expertise developed by Mortgage Fund activities and the rules for Mortgage Fund refinancing. PKO BP, however, did not utilize Mortgage Fund refinancing and developed some of its own dual-indexed products.

as much as 10 percent of the portfolio as cited by one bank), the rate has now fallen. There are several reasons: some banks charge a prepayment penalty and interest rates are also lower.

- **Maximum and Typical LTVs.** Table 4 shows both maximum and typical loan-to-value ratios. Clearly, the typical LTVs — about 40 to 60 percent — are much less than the maximum stated in the banks' policies, reflecting the conservatism of both Polish lenders and borrowers. (In comparison, typical LTVs in the U.S. are 75 to 80 percent; many special affordability programs provide LTVs of 90 to 97 percent. In some cases, a portion of the LTV — the highest 15 or 20 percentage points — carries default insurance.)

- **Ratio of Monthly Payment to Income.** The ratio of the loan payment to a borrower's monthly income – the so-called effort ratio -- varies widely, generally ranging between 17 and 40 percent.

3.2.3 Poland's Rate Structure: Efficiency and Affordability

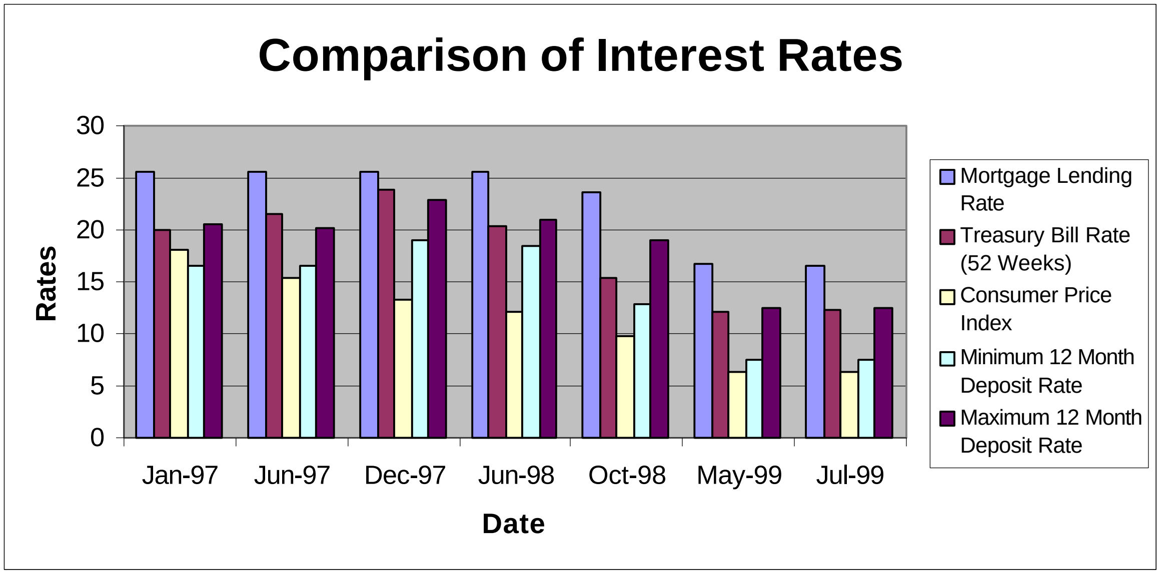
This section compares time trends in lending rates, deposit rates, inflation, and one-year Government paper in order to assess the efficiency and affordability of Poland's rate structure. As discussed further below, high real lending rates and exceptionally large spreads are problems that Polish banks will need to continue to address in the next few years. Relevant questions include:

- How have the changes in mortgage lending rates corresponded with inflation?
- How do lending rates compare with those for Government debt?
- How do lending rates compare with the cost of funds for Poland's banks?
- How do Poland's interest rate spreads compare with those of Europe?

Chart 2 provides basic data on interest rates and inflation. To simplify the "gap" analysis presented here, the mortgage lending rate we show in the table is the weighted average lending rate on variable rate mortgages for the five major lenders.[20] Other rates could be used as desired.

[20] The weighted average mortgage lending rate for variable rate loans is a composite of rates for PKO BP, Pekao S.A./PBG, GE Bank Mieszkaniowy, PBK, and BISE. The weight for PKO is 0.6, while each of the others was assigned a weight comparable to market share.

Chart 2: Comparison of Interest Rates in Poland[21]



It is, of course, crucial to housing finance affordability that rates continue to fall. The steady fall in inflation since 1996 is impressive and appears to be continuing. Indeed, a breakthrough appears to have been achieved during 1999, as inflation fell to the single digits. The issue is whether interest rates have fallen accordingly. In particular:

- Have lending rates, T-bill rates, and WIBOR all followed the decline in inflation in comparable magnitude?
- Has the margin between deposit rates and lending rates begun to fall to acceptable levels, relative to international standards of operation?

The answer to whether the various interest rates are falling in rough correspondence with inflation (and with each other) is: not quite. Between January 1997 and July 1999, inflation fell by 11.8 percentage points (a 65 percent drop). However, the weighted average interest rate fell by 9 percentage points (a 35.3 percent drop); and the Treasury Bill rate – which fluctuated more than other rates during this period -- saw a net drop of 7.68 percentage points (a 38.6 percent drop). To keep strict correspondence with the drop in inflation, the mortgage lending rate would have had to fall at a somewhat higher rate. It did, however, follow the drop in T-bill rates in relative magnitude.

[21] Source: National Bank of Poland, GUS, and Reuters. The mortgage lending rates is a weighted average rate on variable mortgage products, as noted above.

Interest Rate Spreads in the Banking Sector Overall. The efficiency of the banking sector can be usefully addressed by an assessment of the gap between lending rates and deposit rates. Following a comment on spreads in the banking sector overall, chart 3 presents this gap analysis for mortgage finance.

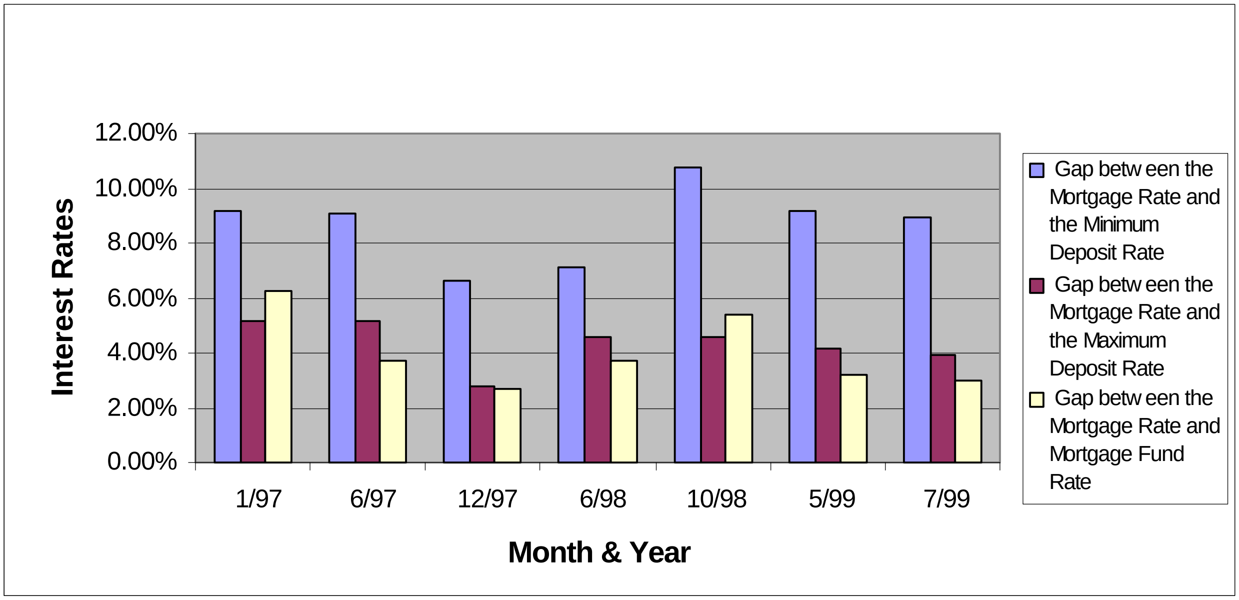
A recent assessment of margins and costs in the Polish banking sector has documented the very large spreads — relative to Europe — between average rates paid to deposit holders and the average return from lending.[22] The average interest margin of Polish banks was 6.2 percent in 1998, for example, compared with 0.7 to 0.9 in Switzerland, 1.0 to 1.2 percent in Germany, 1.1 to 1.8 percent in France, and 2.3 to 4.7 percent in Greece. This study, carried out by Goldman Sachs, indicates that the exceptionally high spread in Poland is a function of both high operating costs and high reserve requirements. Banks within Poland vary considerably in their spreads, with the larger, internationally oriented banks having the lowest spreads. The largest spreads occur in small banks, which operate in local or niche markets (for example, Bank Komunalny with a spread of 12.8 percent, Bank Czestochowa with 8.0 percent, and LG Petro Bank with 7.3 percent, all for the first six months of 1999). The lower spreads of the larger banks during this period are still not considered competitive, however. For example, WBK was at 5.4 percent during the first six months of 1999, Kredyt Bank at 5.3 percent, BIG Bank Gdanski at 5.0 percent, and Pekao S.A. at 4.6 percent. But BRE is reported to have had a spread of 3.6 percent, and Bank Handlowy of 2.5 percent during this period. Goldman Sachs suggests that if spreads were to fall by a reasonable amount from a market perspective – 2.9 percentage points on average, according to their calculations – most Polish banks would start to suffer losses. To survive in that case, they would have to reduce operating costs and significantly increase returns.

The Efficiency of Mortgage Lending and the Cost of Funds. What does this analysis reveal about mortgage lending in Poland? The gaps between the mortgage lending rate and three measures of the cost of funds to banks (the minimum and maximum deposit rates and the mortgage fund rate[23]) are rough proxies for the efficiency of mortgage bank lending as practiced by the major lenders (see Chart 3).

[22] See Rzeczpospolita, September 29, 1999, No. 228, p. B9, and Prawo i Gospodarka, September 29, 1999, No. 214, p. 12, and the article reported in Polish News Bulletin, September 30, 1999, 187/99.

[23] The mortgage fund rate is the cost to banks of borrowing (refinancing eligible mortgages) with the Mortgage Fund. It is a monthly rate calculated as a function of the average rate of 13-week Treasury bills, a NBP refinancing rate, and the BudBank margin.

Chart 3: Comparison of Mortgage Interest Rate, 12 Month Deposit Rates, and Mortgage Fund Rate



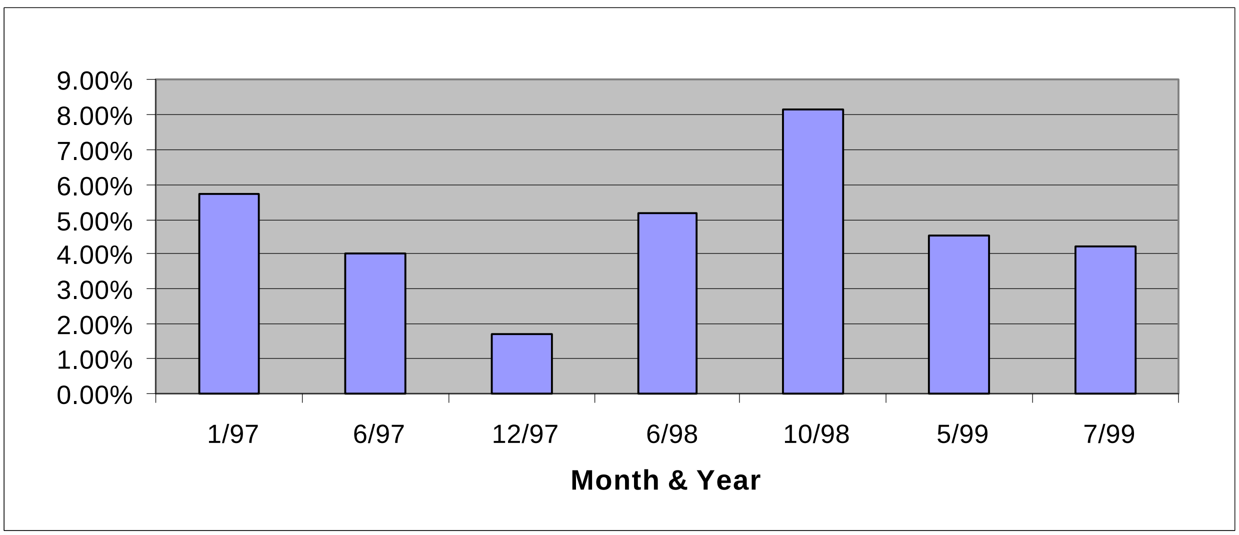
The findings shown in Chart 3 are revealing in that the gap between the mortgage lending rate and the minimum and maximum deposit rates varied greatly during this period, both within each series and in comparison with one another. In the long run, one might expect greater convergence between the deposit rates as the sector becomes increasingly competitive. Just as for the banking sector as a whole, greater efficiency in the long run should reduce the spread between deposit and lending rates. However, as long as banks can maintain the large gap between returns from lending and the cost of funds from depositors, wholesale funds such as those from mortgage bonds or the Mortgage Fund will clearly not be competitive.

Efficiency and Spreads in Comparison to Government Debt. Recall from the discussion in section 3.1 that the measure of intermediation efficiency is the difference between the mortgage lending rate and the rate on Government paper of comparable duration. In the efficiency study of Europe and the U.S. cited above, adjustments were then made for a variety of point structures and special features (for example, downpayments and fees or special discounts affecting the interest rate) to make the comparisons relevant across the markets included in the study. Government paper (sovereign debt) is assumed (in developed countries) to be risk free; thus, the gap between the rate of Government paper and the mortgage rate is an approximation of the level of risk inherent in housing finance.

This analysis cannot be replicated exactly for Poland for a variety of reasons. Most important, Government paper of comparable duration to mortgage lending does not yet exist in the market. The vast majority of Treasury bills are of 52 weeks duration.

Although a ten-year bond has recently been floated, little information is available and no freely quoted rate exists. Despite these shortcomings, the gap between the mortgage lending rate and the Treasury bill rate is still a useful measure of the relative risk inherent in mortgage lending in Poland (on the assumption that Treasury bills in Poland are reasonably risk free). Evidence of a falling gap would signify that Poland's housing finance system is becoming more efficient and is perceived by the banks as becoming less risky. As before, we use the weighted average lending rate for variable rate mortgages (generally for 15 years or less), which we compare with the 52-week Treasury bill to provide a rough measure of efficiency. The results are presented in Chart 4.

Chart 4: Intermediation Efficiency (Gap between Mortgage Rate and T-Bill Rate



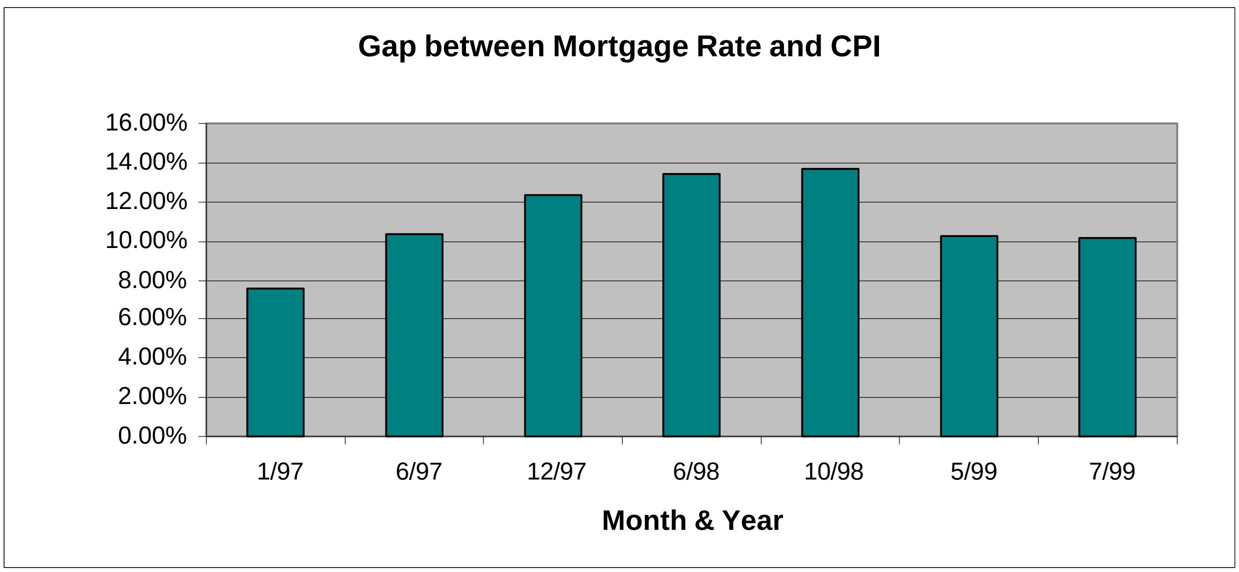
Since January 1997, the gap between the lending rate and T-bills in Poland has fallen by about 30 percent (from 5.74 percent to 4.21 percent). There has been considerable fluctuation, however, so the trend line cannot yet be said to be steady.

The efficiency findings from the intermediation study cited above found the gap between the mortgage rate and Government paper for the U.K, the U.S., Germany, Denmark, and France to range between 100 and 230 basis points. *These provide a long-term benchmark goal for Poland, although Poland cannot be expected to approach such numbers in the near term. What is of more concern in the short run is that there has been no consistent fall in the gap over the past two and a half years. It is somewhat encouraging that the trend has been uniformly downward since October 1998.* Furthermore, the mortgage lending system appears to be handling a recent spike in short-term interest rates in a stable manner. Between early September and early November, WIBOR has risen sharply – from 13.6 percent to 18.66 percent on

November 5. Despite this, mortgage lending rates have held steady, ranging between 16 and 20 percent, the same as the rates reported in Table 4 for July 1999.[24]

A second comparison useful for assessing efficiency is between the mortgage lending rate and the rate of inflation. This is a proxy for the "real" lending rate. It is not a simple concept, and the rate of inflation as measured by the consumer price index may not be an ideal point of comparison. It is, however, the only readily available monthly price index. Chart 5 provides an estimate of this gap. Again, considerable fluctuation has occurred, which is not at all surprising; and there has been a small downward trend in the gap – and thus in our proxy for the trend in real rates – since October 1998. But no overall real improvement has been seen over the two years between June 1, 1997 and July 1999.[25]

Chart 5: Real Lending Rates



As Poland's housing finance system matures, continues to be subject to the pressures of competition, and begins to reflect reductions in operating costs (no doubt helped by consolidation, privatization, and foreign partners), efficiency should be enhanced and both these gaps should shrink more rapidly. Recent declines in both mortgage lending rates and the various spreads indicate that competitive pressures have created a responsive financial environment in housing finance. However, the gaps

[24] Tomasz Stepien, "WIBOR up, mortgage rates holding steady", Warsaw Business Journal, November 15, 1999. Mr. Lech Gajewski, executive director of Bank Slaski, notes that this is the first significant increase in short-term rates, which was put into effect by the Monetary Policy Council, which the banking system has had to face since the market economy was introduced in Poland.

[25] It must be noted that during this time period that NBP has generally increased reserve requirements. The reserves-to-assets ratios for the quarters beginning in I/97 are as follows: I/97, 5.2%; II/97, 5.7%; III/97, 6.5%; IV/97, 6.5%; I /98, 6.7%; II/98, 6.7%; III/98, 6.6%; IV/98, 6.7%. In addition, beginning in 1999 banks must create reserves for deposits of foreign banks, which is also felt to increase the degree of burden.

remain too large for effective housing finance in Poland, especially in a long-term environment that will be increasingly subject to EU and other outside competition.

3.2.4 Affordability of Housing

Housing affordability is a complicated function of the inter-relationships among income, construction costs, swings in market prices, mortgage rates, deposit rates and so forth. Is housing becoming more affordable in Poland? In other words, as compared with several years ago, can consumers (assuming the same level of real income and facing the same effort ratio[26]) afford a larger loan because rates have fallen? Will this larger loan buy more housing than previously? Or alternatively, has real income increased faster than real interest rates and real construction and purchase costs?

The tentative answer is that housing affordability is slowly improving for consumers:

- Income, on average, is increasing faster than prices: real average monthly wages increased by 5.5 percent in 1996, 5.9 percent in 1997, and 3.7 percent in 1998.

- Construction prices are increasing at roughly the same rate as inflation. The increase for 1998, for example, was 12.9 percent as compared with 11.8 percent for the consumer price index. In 1997, however, the construction cost index increased by 14.2 percent, while inflation stood at 14.9 percent. Thus, increases in real wages as compared to increases in (real) construction costs have shown a gain.

- Real lending rates have shown a small downward trend since mid-1998 (although the gap remains large). So affordability, as assessed using a constant monthly payment, should be increasing slightly.

- The maximum deposit rate available to consumers appears to be gaining on the rate at which they must borrow for a mortgage.

Do these improvements mean that the vast majority of households can afford to purchase a home? No, but the situation is better than generally recognized and certainly appears to have improved in the first six months of 1999. Income relative to construction costs still remains low in Poland. However, using a DIM loan, or a conventional loan, with mortgage rates now at 16 percent, purchasing a modest apartment with a mortgage loan and a downpayment of 25 or 30 percent is certainly feasible for households with moderately high incomes. If lending rates continue to fall, consumers will begin to see major improvements in affordability.

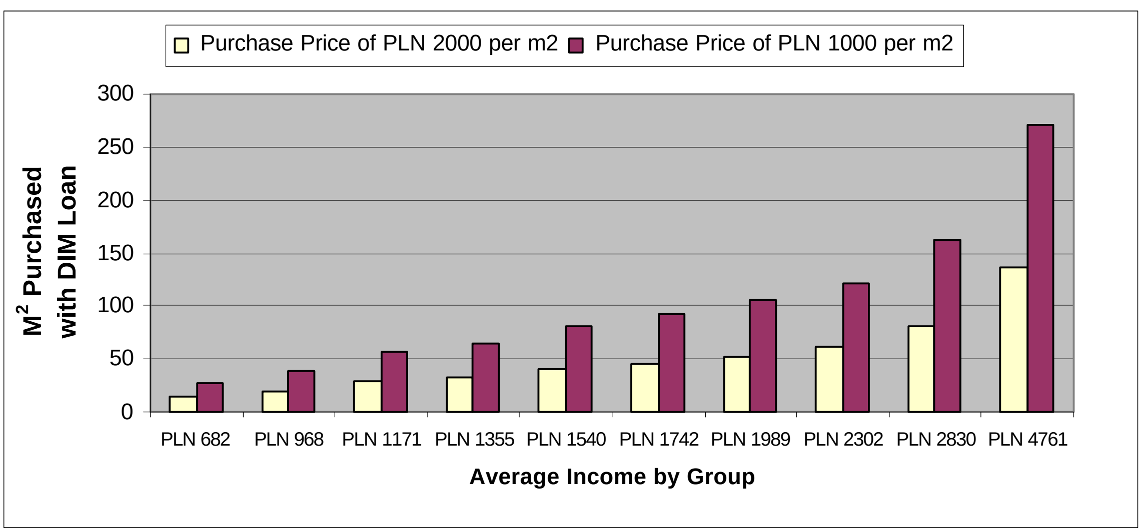
The missing information needed to complete the affordability picture is the actual sales price of housing (per m2) in different locales. Although there is no nation-wide

[26] The effort ratio is the payment to income level as noted above.

index for sales prices in Poland (in the U.S. for example, the median sales price is published regularly to provide comparisons over time), the Housing Research Institute (HRI) regularly conducts a sample survey of 23 gminas, which provides a good overview of sales prices for small, medium, and large cities. Table A5 in the Annex provides the distribution of prices (per m2) for the HRI sample in 1997 and 1998; the sample includes large gminas (over 100,000 persons), medium (25,000 to 100,000) and small gminas (less than 25,000). Prices are given for a range of situations: the lowest cited in the sample, the most often cited (the mode) and the highest (these are asking prices for apartments in multifamily units). Generalizations from these figures about either averages or trends are hazardous. First, house prices vary tremendously between urban and rural areas, from city to city, and from large cities to small. Second, although prices have fallen slightly in some gminas, surprisingly perhaps, even in Cracow the highest prices cited fell just slightly. In other cases, such as Warsaw, both moderate and high prices rose considerably.

We can address the affordability of home purchase with a mortgage loan, however, by choosing some "representative" price; we have picked PLN 2000 per m2, which is the "lowest" price for Warsaw in the HRI data, but close to (or exceeding) the highest in Lublin, Lodz, Torun, and much in excess of the highest in the majority of medium and smaller cities in the sample. Chart 6 indicates the number of square meters that an "average" household in each of ten income categories (deciles) is able to purchase with a DIM loan, a 30 percent downpayment, and an effort ratio (payment to income ratio) of 38 percent (among the highest in Poland).

Chart 6: Household Affordability In 1998 (Total Square Meters Able To Be Purchased With A Dim Loan[27])



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[27] The assumptions are as follows: Average monthly household income is based on the distribution of per capita income for 1998 published by GUS and provided to the Ministry of Finance for analysis. The income groups are "deciles", that is ten groups with the same number of households in each group. The monthly per capita figure is multiplied by 3.54 (average household size in Poland). The DIM loan assumes a real interest

Using these assumptions, households in the sixth income group, for example, are able to purchase an apartment of 46 m2, while those in the ninth income group can purchase 80.7 m2. If we assume a price per m2 of only PLN 1000, we can clearly double the amount of space that can be purchased under our assumptions; thus households in the third group and higher could purchase an adequate unit in smaller cities or in the less expensive neighborhoods of the larger gminas.

3.2.6 Delinquencies and Defaults

Delinquency and default rates are among the most revealing and transparent measures of the health of a bank's portfolio. In developed financial sectors, these rates are collected, measured, and analyzed by a variety of institutions. First and foremost are the banks themselves. In addition, these rates are key indicators for regulatory authorities. Delinquency rates are generally developed for late payments of one, three, and six months. Such data are generally also collected by the banking industry's professional associations (and/or other institutions in the system) and published by type and size of bank and so on—allowing individual banks to use aggregates as benchmarks against which to evaluate their own performance.

In addition, in developed markets, a variety of institutions undertake financial surveys and sample data collection efforts in order to collect files at the level of the individual borrower (household, developer, commercial property, etc.). Statistical analyses of these microeconomic databases can yield extremely useful information concerning which factors are most important in contributing to default as well as rather precise estimates of what the marginal contribution of a particular factor might be. In the U.S., for example, default rates are strongly associated with very high loan-to-value ratios and a variety of household characteristics; also, the probability of prepayment is a key variable in pricing mortgage-backed securities. Similar estimation concerns regarding factors that contribute to default and prepayment will be very important in pricing Poland's mortgage bonds.

In Poland, according to data collected by the Inspector General of the National Bank (GINB), the proportion of "irregular" loans[28] now constitutes 11.8 percent of the banks' total loan portfolio. Another 6 percent of loans are under scrutiny. However, no data on delinquencies or defaults have been made available for housing finance. It is

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rate of 8 percent, an expected maturity of 10 years, a monthly starting payment rate of .012 of the loan's value, and an effort (payment to income) ratio of 38 percent. The price of a square meter is assumed to PLN 2000.

[28] According to the Attachment to the Ordinance No. 13/98 of Banking Supervisory Committee on principles of reserve collection for banking risk, with consumption credits (housing credits are excluded) for individuals are tied three categories of amounts due (irregular loans): below standard (poni¿ej standardu) due - payments of principal or interest delayed to the schedule above 1 but below 3 months, borderline (doubtful) (w¹tpliwe) due - payments of principal or interest delayed to the schedule above 3 but below 6 months, lost (stracone) due - payments of principal or interest delayed to the schedule above 6 month. According to these rules banks must fill in appropriate parts of statistical reports.

still difficult for some banks to track such information on an aggregate (or centralised) basis (and unwillingness to share such data remains a problem). In addition, in Poland, declaring "default" is likely to be related to administrative difficulties with the foreclosure process. In cases where the loan is sufficiently delinquent to be declared in default, and this information might be used to force foreclosure proceedings to begin, reluctance to start along this road, given the difficulties involved, may provide an incentive not to declare the loan delinquent in the first place.

Delinquencies in the housing finance portfolio need to be included as a regular element of GINB data collection. Also, improving the scope of data collection and analysis of causal factors in delinquencies and defaults by the banks themselves, discussed further in section 4.0, could facilitate modifications in underwriting and collection procedures—modifications that could further reduce risk.

3.2.7 Regulation and Supervision

GINB is currently in the final stages of preparing an Inspection Manual for housing finance. This Manual, which is now drafted and being reviewed by a variety of outside experts, is part of a major effort by GINB to undertake this crucial regulatory function of the overall portfolios of all the banks.[29] The Housing Finance Manual is a major document, which discusses the numerous types of risk associated with real estate lending, provides sample forms to assist in quality control of the portfolio (including appraisal practices, loan documentation, and record keeping) and notes potential problems connected with real estate management. There is relatively little history of market rate lending in Poland, however, and, as emphasized, a dearth of institutions collecting and analyzing data. As a consequence, almost no accessible data exists on loan performance over time, property valuations by type and area, and so forth. This topic is further discussed in Section 4.0.

3.2.8 Professional Support Organizations

The housing finance sector in Poland receives support from a number of professional organizations—most especially the Polish Banks Association, but also associations of appraisers, builders, and realtors. In addition, peripheral institutions and services—such as the newly formed Credit Bureau and the introduction of mortgage-related insurance products—will further support risk reduction efforts.

The Polish Banks Association (PBA). The PBA is an effective and active professional organization supporting the interests of banking in Poland. In 1997, in response to rapidly increasing interest in housing finance among its members, PBA formed a permanent Housing Committee. Among its activities in assisting the

[29] Development of regulation and supervision has been heavily supported by USAID. The Manual development is being undertaken by Barents. UIC has provided a number of reports to assist this effort; UIC has also developed a mortgage bank simulation model to assist GINB with training in this new area of lending.

development of housing finance, PBA has lobbied to improve a variety of legal and administrative impediments to housing finance; has sponsored conferences and workshops to address numerous issues including regulation and supervision and appraisal practices; has reached out to similar professional organizations in CEE, Europe, and the U.S. to develop lines of communication on issues of regional and international interest; and has sought to supply its members with educational material on housing finance from both the U.S. and Europe.

PBA has been an instrumental sponsor of Poland's new credit bureau, a valuable addition to the housing finance sector (see below). PBA is also working to resolve disagreements over regulatory matters, such as appraisal issues that have arisen between the Federation of Appraisers and GINB. In addition, PBA is involved in developing new mortgage-related products, such as mortgage insurance.

The Credit Bureau. The Polish Banks Association and other organizations have been active for over a year in initiating Poland's first credit bureau, which opened its doors for business in early 1999. This is an extremely important step for Poland, where banks, appraisers, realtors, and developers have not had a tradition of providing mutually "beneficial" information. This is one aspect of the Soviet legacy, aggravated by the facts that (1) some banks do not, as yet, have IT systems that make it easy to release aggregate or specific information and (2) laws on releasing consumer information are particularly strict.

In underwriting mortgage loans, banks should ideally calculate the gross debt ratio – the combined payments a household must make on all its installment debt relative to income. A bank holding a consumer's car loan in the U.S., for example, would release this information to the bank attempting to underwrite the mortgage loan, even if it was a competing bank. The Polish Credit Bureau is now gaining membership and momentum to ensure that this type of situation becomes a matter of course. Safeguards and confidentiality systems are being put in place, and one can hope the battle will gradually be won. If banks can underwrite with more confidence about the true value of a household's circumstances, including its gross debt ratio, then loan-to-value ratios and payment ratios could be made less conservative when circumstances so indicated.

Other Professional and Research Organizations Supporting Housing Finance and the Real Estate Industry. In addition to the PBA, Poland boasts an impressive group of professional organizations. These include:

- The Polish Association of Home Builders, which addresses numerous aspects of construction and development, including research into "supply" constraints to the market.
- The Polish Federation of Valuers' Associations, which is associated with both worldwide and European valuers organizations, addressing best practice methodology.

- The Polish Real Estate Federation, which has been effective in improving the overall functioning of the sector, including pushing for changes in legal regulations and in the education and licensing of professionals.

Other institutions supporting research and analysis of housing issues in Poland include:

- The Foundation for Mortgage Credit, which supports the development of housing finance.
- The Housing Research Institute, which provides data and analyses of housing need, housing condition, and subsidy policies.
- Crakow Real Estate Institute, which addresses real estate policy issues concerning housing, land, and valuation and tax policy as well as housing finance.

We note again that USAID, more that any other bilateral or multi-lateral donor, has provided consistent support to housing finance in Poland for almost a decade.

4.0 MAJOR ISSUES IN THE NEW MILLENNIUM

Poland has made impressive strides in housing finance in a relatively short period. Major achievements include increased competition, effective use of innovative loan products, support to sector development through the Polish Banks Association and other professional organizations, and improvements to public sector housing finance policies. The new millennium will soon see introduction of a capital market funding mechanism through mortgage banks, regulation and supervision procedures tailored to housing finance, and revised housing subsidy policies compatible with increasing use of mortgage finance.

According to the Wall Street Journal Europe, "Poland boasts one of Central Europe's healthiest banking sectors, with 68 banks among the region's 247 largest. Increased competition is forcing down margins and encouraging consolidation."[30] As ranked by assets, Poland boasts 4 of the largest 10 banks in the region: PKO BP in second place, Pekao S.A. in third, Bank Handlowy w Warszawie in eighth, and BGZ in tenth. In addition, BGK was ranked second in the region with respect to return on assets.

Major hurdles still face Poland's banks in the millennium, however, according to our analysis. As the volume of mortgage lending grows, the demands on the system for adequate funds, adequate information, and more effective analysis and sharing of risks will inevitably increase.

Two major tasks, in particular, will face Poland's housing finance system in 2000 and beyond: increasing banking efficiency and increasing housing finance use. Reducing interest rate spreads and real lending rates is crucial to increasing efficiency. This will involve not only consolidating the progress made to-date in the system but also continuing with institutional restructuring, better information systems, further legal and administrative reforms, and other steps already underway to reduce operating costs. Increasing the use of housing finance is, of course, tied to reducing real rates. But it also requires addressing other barriers, including changing consumer attitudes to housing; shifting how risks in the system are shared, through a better mix of risk across the banks, the borrower, and third party credit enhancement; and economy-wide issues involving mobility and Government subsidy systems targeted to increase effective housing demand.

Key questions for Poland include:

- What would be an efficient way for the institutional structure of mortgage lending to evolve?
- What should be Poland's medium-term goals for lending rates and spreads?

[30] Central European Economic Review, Wall Street Journal Europe, October 1999, p. 22.

- What are key issues in addressing risk (e.g., adequate information systems for quantifying risk and continued legal and administrative reforms)?
- Do the banks bear an unfair share of the risk burden?
- Is housing finance underutilized? What might be the causes?
  - Are too few households gaining access to the system?
  - Are loan terms unduly conservative (that is, are loan-to-value ratios too low or loan duration too short to assist affordability)?

4.1 Increasing Efficiency

4.1.1 Evolving Institutional Structure and Roles

The third stage in Poland's evolution toward a new institutional structure in housing finance will see additional progress in privatization — with PKO BP scheduled to be privatized in 2001 — and the introduction of mortgage banks. The merger and consolidation process will doubtless continue, in efforts to further reduce costs and spreads. This may be not only an internal process but also an external one that looks to Europe and elsewhere. Pekao S.A.'s CEO put it well: "If we want to be a functioning part of Europe, we should accept changes in the market, and be deeply involved in globalization."[31]

Poland's progress toward developing a mortgage bank structure is summarized in Table 5. Among Poland's nine largest banks (as measured by their capital), six have applied for a mortgage banking license and a license has been granted to one (BRE). Other Polish banks, their foreign partners, and other foreign banks are considering application or have already applied. Among the universal banks' major lenders in housing finance, three of the six have applied for a license. Others, however, will continue lending for mortgage finance as universal banks. GE, for example, which has absorbed PAMBank, has apparently stated its intention to continue lending as a universal bank.[32]

[31] Maria, Wisniewska, Central European Economic Review, Wall Street Journal Europe, October 1999, p. 14.

[32] GE Bank Mieszkaniowy states that over the next few years it plans to provide 10 to 15 percent of all mortgage and housing credits. Polish News Bulletin, August 23, 1999, p. 5.

Table 5: Applications For Mortgage Bank Licenses in Poland

BANK	CURRENT RANK (ASSETS)	CURRENT HOUSING FINANCE LENDING IN POLAND	MORTGAGE BANK DEVELOPMENT
PKO BP	1	Holds 65% of current portfolio	Applied
Pekao S.A. (PBG)	2	Major competitor	Applied
Bank Handlowy	3	None	Applied
BPH	4	Small	Applied
BIG Bank Gdanski	5	Small	None
BGK	6	Small	Applied
BRE Bank/ Rheinische Hypothekenbank	7	None	Application granted
Bank Slaski/ING	8	Major competitor	Applied
PBK/Creditanstalt	9	Major competitor	Applied
BGZ	10	Small	None
WBK/AIB (Ireland)	14	Small	Considering applying
Hippo-Vereinbank	17	None	Application granted
BGK/BudBank	19	Small	Considering applying
BISE	41	Major competitor	None
GE Bank Mieszkaniowy (PAMBank)	53	Major competitor	None

Level the Playing Field. Competition in this mixed housing finance environment will be best served by ensuring that both universal and mortgage banks operate on a level playing field. Making this happen requires addressing issues on both sides:

- In the short term, universal banks need fair treatment on issues such as the statutory lien. In the longer term, they will need access to capital market funds via means that might include rejuvenation of the Mortgage Fund, introduction of another type of refinancing facility, and/or development of a legal and administrative structure that would permit securitization.[33]

- Mortgage bonds apparently face a variety of barriers that may make them uncompetitive as sources of funds, such as transfer taxes and limits on their acquisition by potential capital market investors. Our analysis of interest rate spreads (section 3.0) suggests that spreads will have an important influence on the future success of mortgage bonds. In Europe, mortgage bonds are viewed as very safe debt instruments: the difference between mortgage bond rates and that on Government debt is estimated to be about 0.4 percent. It will be difficult for mortgage banks in Poland to fund themselves effectively until the barriers that make them relatively costly as sources of funds (compared with the low-cost funds available from depositors) are lowered.

[33] Please refer to the companion paper (noted above) by Michael Lea regarding capital market funding.

4.1.2 Improving Information Systems to Better Assess Risk in Housing Finance: What Kind of Data Should be Collected and Who Should Collect It?

If Poland is to have a sophisticated, broad, and deep housing finance market, it must have sophisticated, broad, and deep pools of data available to borrowers, lenders, insurers, investors, regulators, and financial and macroeconomic analysts.[34]

The relative dearth of data in Poland, as in other transition countries, is a major legacy of the soviet era – either the data were not needed inside the centralized system, or it was not in the interests of the various institutions and individuals to make them public. Thus, for example, no aggregate data on mortgage finance are yet published by the Central Bank or Government Statistical Office. National data measuring investment in housing require revised procedures and definitions.[35] The Polish Banks Association receives little or no data on housing finance from its members.[36] As noted, some banks still face difficulty in assembling statistics in a central location from the branch offices. Expanded IT platforms will be needed to consolidate the systems involved in recent mergers. It should be noted however, that Poland is beginning to undergo change in this area. As one example, PKO BP together with Bank Slaski, has set up an electronic payment center. And, IT development is beginning to take off in some CEE countries; the Czech Republic leads the way in IT spending per capita, followed by Hungary, Slovakia, and Poland.[37]

In addition, across the board — in banks, the PBA, and independent research institutions — databases on individual borrowers are needed for analysis of a variety of issues: default risk, prepayment risk, information necessary for the development of credit scoring, forecasts of the demand for housing for marketing and planning purposes, and so forth. Finally, outside the banking system proper but vital to its effective functioning is the need for data on "real" transaction prices and for effective application of the various appraisal methodologies.[38]

Table 6 provides suggestions for data collection in light of the types of risks involved in the system, and the institutions that might suitably be responsible for

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[34] See Douglas Duncan, "The Collection, Dissemination, and Importance of Mortgage Market Data", prepared by the MBA (U.S. Mortgage Bankers Association) for the PBA on behalf of USAID's Poland Housing Finance Project, which has initiated the forging of a link between PBA and the MBA, September 1999.

[35] See the discussion of this and other data issues in Sally Merrill et. al., "The Feasibility of Estimating the Demand for Mortgage Credit in Poland", USAID Poland, September 1999.

[36] The data collection effort undertaken by UI/CREI for USAID's Poland Housing Finance Project, which has supplied the major portion of data on mortgage lending in this paper, will hopefully represent a first step in this regard.

[37] Business Central Europe, October 1999, p. 59.

[38] A number of these themes have been discussed in UIC reports. See, for example, Merrill et. al, "The Feasibility of Estimating the Demand for Mortgage Credit", op. cit, and Mark Bates, W. J. Brzeski, and David Dale-Johnson, "Property Valuation and Appraisal: U.S. Information Systems and Recommendations for

addressing them. More efficient management of various risks (marked in the table with "M") and statistical analyses backing up continued management improvement (marked in the table with "A") both provide incentives for the system to put these types of data collection in place. Again, both aggregate and "micro" (household and transactions) databases are required. The data collected for the Mortgage Fund, which includes fairly detailed statistics on both loan terms and borrowers, may provide guidelines for these databases.

Table 6: Data Collection for Management and Analysis of Risks

Type of Risk And Institution	Macro-economic Risk	Systemic Risk	Legal Risk	Credit Risk	Operations Risk	Liquidity Risk	Interest Rate Risk
Banks			A, M	A, M	A, M	A, M	A, M
PBA	A	A	A	A	A	A	A
GINB	A, M	A, M	A, M	A	A	A	A
HUDA/ GUS	A	A	A				
Research Institutions	A	A	A	A	A	A	A
MOF/GOP	A, M	A, M	A, M				

M = institutions responsible for management of various types of risk.
A = institutions responsible for analysis of various types of risk.

Risks Faced by Mortgage Lenders. A variety of risk-related issues are still not fully dealt with in Poland, resulting in an inadvertently large share of various lending risks being shouldered by the banks. For example, underutilized and time-consuming foreclosure procedures favor the borrower over the bank in case of default; since this increases credit risk, it clearly increases bank costs. Similarly, the statutory lien issue is not yet fully resolved, nor is title registration sufficiently rapid or accessible. Such factors have forced banks to develop short-term insurance policies to address operations risk, increasing costs for banks and borrowers accordingly. Mortgage insurance — that is, credit or default insurance — may be a useful product when the system is more fully developed. Other third-party credit enhancements should also eventually enter the system. Meanwhile, however, banks continue to bear much of the risks — and their costs, some or all of which are passed on to borrowers through higher lending rates, variable rate mortgage products, lower deposit rates, and/or lower loan-to-value ratios.

4.2 Factors Influencing Housing Finance Utilization in Transition Countries

The relative role of mortgage credit in the Polish economy has exceeded that in Hungary and the Czech Republic, as noted. Estimates suggest that perhaps 20 percent of new home purchasers utilize a mortgage loan in Poland. However, the total mortgage debt outstanding is still not large: at the end of 1998 it was PLN 2903.6 million, only 0.57 percent of the 1998 GDP of PLN 511,109 million—virtually the same share as at the end of 1997 (0.5 percent). If the mortgage portfolio continues to increase during the remainder of 1999 at the same rate as for the first half of the year, however, it will have risen to about 0.9 percent of GDP. Finally, total private sector lending in Poland is relatively low compared to other countries in the region--. just over 20 percent of GDP in 1998, compared with about 25 percent for Hungary, over 40 percent for Slovakia, and about 65 percent in the Czech Republic.[39] Thus, the following issues should be considered:

- Is this the level of demand for mortgage credit that should be expected at this time?
- What determinants distinguish the demand for housing and the demand for mortgage credit?
- Are consumers' energies and funds being concentrated on consumer durables or other items instead of housing? If so, why?

These questions are very difficult to answer for Poland (and also for other transition countries). Not only are there insufficient data for analysis but also, as noted, it is not clear what should be expected in the transition process. With which countries should Poland be compared in judging whether utilization is “low”? And at what point in the evolution of their mortgage finance sectors? What can be expected as the economy emerges fully from controls and price distortions?

The levels of demand for housing and for mortgage credit in the U.S. and in Western Europe may hold little current relevance for Poland and other transition countries for many reasons. Obviously differentiating factors include differences in income levels, real interest rates, the relative price of housing and other goods, the ratio of the price of housing to income, and expectations regarding local and/or regional political and employment stability. But if we attempt to abstract from these—and make the hypothetical assumption that we are comparing selected households in these countries with similar incomes and preferences--what other factors might explain remaining differences in demand?

The fundamental problem is a gap between potential demand and effective demand. This is aggravated by differences between the variables that affect demand for housing and those that affect demand for credit. In combination, the “promise” of housing under central planning, extensive state housing production, the remuneration of households to a substantial extent via in-kind transfers, and distortions in the pricing systems (whether of housing, interest rates, or consumer goods) have left Poland and the other transition countries with very significant barriers in the way of realizing their potential demand for housing.

Problems of inadequate effective demand can result from policy failures on both the demand and supply sides of the housing market. For example, households occupying heavily subsidized housing--who would, with smaller or no subsidies, consider moving to another dwelling or even another city--may have little or no incentive

[39] Business Central Europe, October 1999, p. 48.

to move as long as subsidies persist. This is now the situation with communal housing in Poland. Parallels exist with regard to mortgage credit. If the possibility of government subsidies exists for a household, even if it must wait for years to take advantage of the subsidy, that household may be reluctant to seek credit at market rates of interest.

In sum, "non-income-related" constraints to demand for mortgage credit might include:

- Mobility constraints, such as lack of rental housing permitting smooth relocation.
- Limits on tenure choice – again, a lack of rental housing or dwellings suitable for purchase.
- Other supply constraints on housing types and locations.
- Liquidity constraints – that is relative inability to secure a sufficient down payment, especially since much of income was in-kind under the old system, as noted, and households have not had a lengthy opportunity to accumulate savings under the new system.
- LTV (loan-to-value) constraints imposed by lenders who must bear a larger portion of the risk than comparable lenders supported by a better legal and administrative framework.
- High transaction fees.[40]
- High real mortgage lending rates combined with wide spreads over deposit rates.
- Expectations and attitudes to indebtedness (by households and lenders both?).
- Expectations and attitudes to the cost of housing relative to other goods (especially consumer durables) and to income.

4.3 Conclusions

Poland's housing finance system is likely to remain under-used and over-priced until reduced operating costs, improved recourse to long-term funds, continued legal and administrative reform, better information with which to address risk, and better sharing of risk, allows both a fall in real rates and a more concerted approach — on the part of banks, government, and borrowers alike — to market responsiveness and affordability.

Reducing real rates. To some extent, real rates will come down naturally as both the market and competition mature. The average return on assets in Central Europe's best banks is around 1.4 percent, down 1.1 percentage points from the previous year.[41] This is only 1 percentage point higher that the Western European average of 0.45 percent. Nevertheless, concerted action not only by individual banks, but also by the industry as a whole, the supporting professional organizations, and government is certainly required to help the process along.

[40] The GOP hopes to lower the charges for real estate transactions, which at the moment are 5 percent of the transaction value. See Polish News Bulletin, September 21, 1999, p. 5.

[41] Central European Economic Review, October 1999, Vol. VII, NO. 8, p. 18.

Spreads are bound to fall as competition increases, continued consolidation absorbs the smaller and less efficient banks into larger units, and increased investment and foreign partner expertise helps streamline operations. All these will exert downward pressure on costs. In the U.S., for example, competition and demand have pushed the mortgage business into a high-volume, low-margin existence. Some aspects of the mortgage lending process can be "money-losers" – origination, for example – with net returns made positive through servicing or even just cross-selling.

But, as noted, one must wonder whether Poland is "over-banked" in the medium term, given the large number of banks already in the sector, some of which are quite small, and the imminent entrance of mortgage banks. (Hungary too, for example, is considered overbanked, with over 40 banks serving 10 million people.[42]) In this era of mergers and foreign partners, more consolidation in Polish housing finance is likely. In addition, the larger banks are already introducing better technology and systems management (e-banking being one of the latest pushes), which will also push down spreads.

Additional action is needed on the part of the banks, the industry as a whole, and the government, however, to bring about systemic changes and reduce risk in the system. We have noted many aspects of reducing risks and costs, in particular:

- Improved databases and analyses, by banks and the industry.
- Improved data for appraisal and valuation.
- Continued attention to reducing legal and administrative barriers, in order to both reduce and reallocate risk.
- Government decisions on risk weighting and investment rules for mortgage bonds, development of updated Inspection Manuals that give trends over time, and public reporting of key indicators on mortgage finance.

Databases on individual borrowers are also needed for analysis of a variety of issues we have already noted, including default risk, prepayment risk, preparations for introduction of credit scoring, and forecasts of the demand for housing for marketing and planning purposes.

Outside the banking system proper, but vital to its effective functioning, are data requirements for recording "real" transaction prices and effective application of the various appraisal methodologies. LTVs are currently low in Poland as compared with developed markets. Given Poland's risk profile, this is a rational response on the part of banks. Better appraisal data and more adequate valuation of collateral are needed to give banks a better picture of value. Only then will they feel comfortable about increasing LTVs and reducing spreads.

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[42] Even so, there are signs that the banks avoid risk rather than developing markets. See Business Central Europe, October 1999, 48.

Difficulties involved in foreclosure, the statutory lien, registration and titling, and so forth make it inevitable that banks bear much of the risk in lending and have had to develop short-term specialized insurance products to protect themselves. Even though mortgage default insurance and other forms of third party credit enhancement will assist in sharing risk across the system, until there is better relief from the risks imposed on the banks, margins will necessarily remain high.

Increased use of mortgage lending. Greater use of housing finance will come about as incomes rise, real lending rates fall, and banks' improved risk positions allow higher LTVs. As noted, however, structural factors must also be addressed. Lack of a vigorous rental market, which will not come into being until rent control is lifted, reduces housing mobility. Other supply and tenure choice constraints likewise limit home purchase.

* * *

As long as the economy continues to grow and remains stable, both banks and consumers are bound to change their attitudes about indebtedness. The macroeconomic impacts of increases in bank efficiency and consumers' willingness to assist their housing needs through mortgage finance will progressively unleash potential housing demand in the future; provide leverage to the housing market and to new construction; and thereby let the economy reap the full benefit of this engine of growth. Poland has made an exemplary start.

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ANNEX I
DATA TABLES

Table A1: Total Mortgage Finance Portfolio by Type of Credit

Month & Year	Developer Housing Credits (PLN Mil.)	Mortgage Credits: Home Purchase (PLN Mil.)	Commercial Development Credits (PLN Mil.)
12/97	130.1	1298.7	73.4
12/98	417.7	2346.1	121.8
6/99	600.8	3213.2	138.6

Source: CREI/PBA Bank Survey and CREI estimates.

Table A2: Comparison Of Mortgage Interest Rate, 12 Month Deposit Rates, and Mortgage Fund Rate

Month/ Year	Gap between the Mortgage Rate and the Minimum Deposit Rate	Gap between the Mortgage Rate and the Maximum Deposit Rate	Gap between the Mortgage Rate and Mortgage Fund Rate
1/97	9.16%	5.16%	6.28%
6/97	9.10%	5.20%	3.72%
12/97	6.60%	2.80%	2.70%
6/98	7.10%	4.60%	3.68%
10/98	10.78%	4.58%	5.39%
5/99	9.17%	4.17%	3.20%
7/99	8.95%	3.95%	2.98%

Table A3: Interest Rate Comparisons

Year/Month	Gap Between Mortgage Rate and Treasury Bills	Gap Between Mortgage Rate and Consumer Price Index
1/97	5.74%	7.56%
6/97	4.02%	10.30%
12/97	1.70%	12.40%
6/98	5.16%	13.40%
10/98	8.13%	13.68%
5/99	4.53%	10.27%
7/99	4.21%	10.15%

Table A4: Household Affordability in 1998 (Total Square Meters able to be Purchased with a Dim Loan)[43]

Average Monthly Household Income by Decile (PLN)	Available Credit: DIM Loan (PLN)	Total Funds with 30 percent Downpayment (PLN)	Total M2 able to be Purchased
1. 682	21,365	27,775	13.9 m2
2. 968	30,321	39,417	19.7 m2
3. 1171	43,651	56,746	28.4 m2
4. 1355	50,484	65,629	32.8 m2
5. 1540	62,724	81,541	40.8 m2
6. 1742	70,939	92,221	46.1 m2
7. 1989	80,980	105,274	52.6 m2
8. 2302	93,727	121,845	60.9 m2
9. 2830	124,089	161,316	80.7 m2
10. 4761	208,771	271,402	135.7 m2

Table A5: Housing Research Institute Data (Apartment Asking Prices By Gminas: PLN Per Square Meter)

Gmina	December 1997: lowest	December 1998: lowest	December 1997: Mode	December 1998: Mode	December 1997: highest	December 1998: highest
LARGEST						
Warsaw (Praga)	1900	2000	2250	2600	3000	3800
Bytom	390	600	550	900	900	1000
Kalisz	1000	1100	1100	1300	1300	1500
Krakow	1370	1400	1950	2240	3110	3030
Lublin	1700	1600	1800	1800	2300	2100
Lodz	1150	1200	1250	1350	1700	1630
Poznan	1980	1980	2300	2400	2900	3600
Torun	900	1130	1100	1200	1600	1800
Zielona Gora	800	1200	1000	1350	1500	1600
MEDIUM						
Bilgoraj	n.a.	n.a.	n.a.	n.a.	1300	1500
Dzierzonlow	n.a.	n.a.	n.a.	n.a.	1100	1300
Inowroclaw	900	1200	1050	1300	1200	1500
Lebork	420	800	750	850	1000	1360
Pila	800	900	1250	1250	1400	1500
Radomsko	800	850	950	1100	1100	1300
Stargard Szoz.	n.a.	950	n.a.	1250	1530	1900
SMALL						
Kolo	1100	1000	1150	1200	1300	1450
Mrzgowo	1000	1000	1000	1200	1600	1600
Pruszcz Gd.	950	1700	1300	1900	1500	2100
Slerpc	1100	1000	1250	1100	1600	1600
Strzelce Op.	1000	1050	1100	1200	1200	1500
Zambrow	900	1000	1100	1200	1400	1300

[43] The assumptions are as follows: Average monthly household income is based on the distribution of per capita income for 1998 published by GUS and provided to the Ministry of Finance for analysis. The income groups are "deciles", that is ten groups with the same number of households in each group. The monthly per capita figure is multiplied by 3.54 (average household size in Poland). The DIM loan assumes a real interest rate of 8 percent, an expected maturity of 10 years, a monthly starting payment rate of .012 of the loan's value, and an effort (payment to income) ratio of 38 percent. The price of a square meter is assumed to PLN 2000.